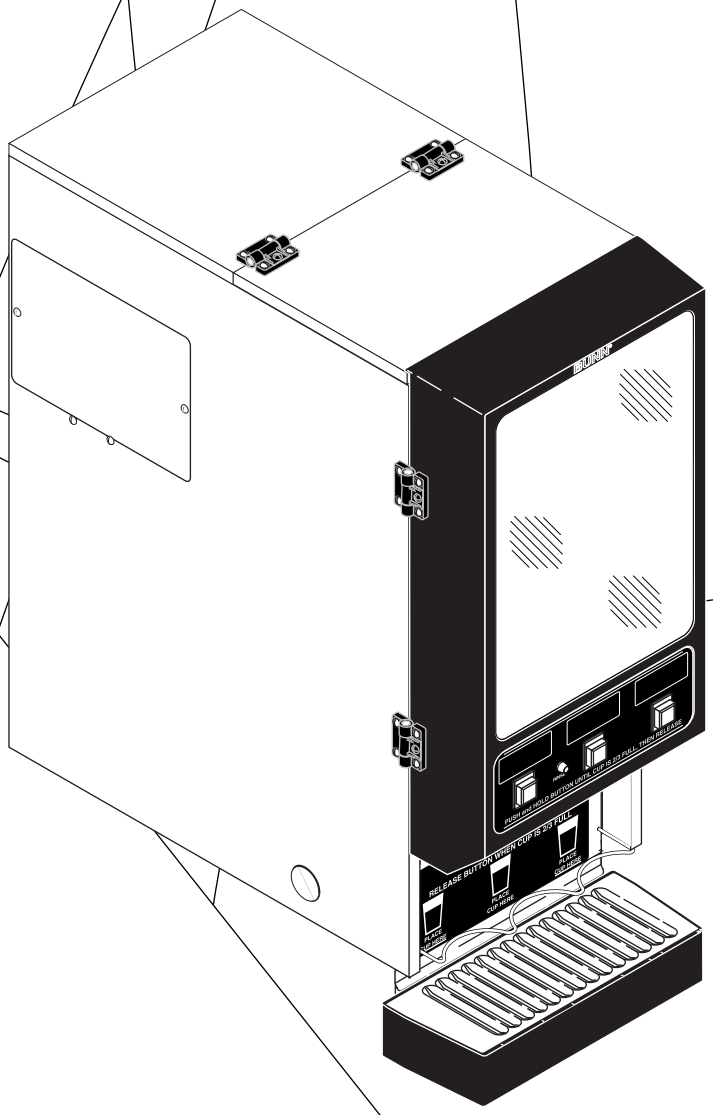
BUNN®



ORPORATION
227
08-3227
529-6644

INTRODUCTION

This equipment dispenses hot beverages or soup on demand from powdered product. It has three hoppers. This equipment may also dispense cold beverages from powdered product from the left dispense station. It is for indoor use only on a sturdy counter or shelf.

WARRANTY

Bunn-O-Matic Corp. ("Bunn") warrants the equipment manufactured by it to be commercially free from defects in material and workmanship existing at the time of manufacture and appearing within one year from the date of installation. In addition:

1.) Bunn warrants electronic circuit and/or control boards to be commercially free from defects in material and workmanship for two years from the date of installation.

2.) Bunn warrants the compressor on refrigeration equipment to be commercially free from defects in material and workmanship for two years from the date of installation.

3.) Bunn warrants that the grinding burrs on coffee grinding equipment will grind coffee to meet original factory screen sieve analysis for three years from date of installation or for 30,000 pounds of coffee, whichever comes first.

This warranty does not apply to any equipment, component or part that was not manufactured by Bunn or that, in Bunn's judgement, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The agents, dealers or employees of Bunn are not authorized to make modifications to this warranty or to make additional warranties that are binding on Bunn. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

The Buyer shall give Bunn prompt notice of any claim to be made under this warranty by telephone at (217) 529-6601 or by writing to Post Office Box 3227, Springfield, Illinois, 62708-3227. If requested by Bunn, the Buyer shall ship the defective equipment prepaid to an authorized Bunn service location. If Bunn determines, in its sole discretion, that the equipment does not conform to the warranty, Bunn shall repair the equipment with no charge for parts during the warranty period and no charge for labor by a Bunn Authorized Service Representative during the warranty period. If Bunn determines that repair is not feasible, Bunn shall, at its sole option, replace the equipment or refund the purchase price for the equipment.

THE BUYER'S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AS SPECIFIED HEREIN, TO REPAIR OR, AT BUNN'S SOLE OPTION, REPLACEMENT OR REFUND.

In no event shall Bunn be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

USER NOTICES

Carefully read and follow all notices on the equipment and in this manual. They were written for your protection. All notices are to be kept in good condition. Replace any unreadable or damaged labels.

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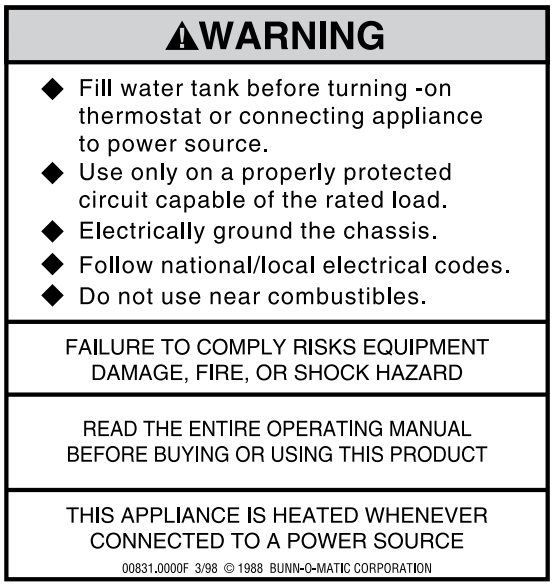
WARNING
◆ Fill water tank before turning -on thermostat or connecting appliance to power source.
◆ Use only on a properly protected circuit capable of the rated load.
◆ Electrically ground the chassis.
◆ Follow national/local electrical codes.
◆ Do not use near combustibles.
FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE, OR SHOCK HAZARD
READ THE ENTIRE OPERATING MANUAL BEFORE BUYING OR USING THIS PRODUCT
THIS APPLIANCE IS HEATED WHENEVER CONNECTED TO A POWER SOURCE
00831.0000F 3/98 © 1988 BUNN-O-MATIC CORPORATION

00831.0000

This equipment must be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA). For models installed outside the U.S.A., comply with the applicable Plumbing /SanitationCode.

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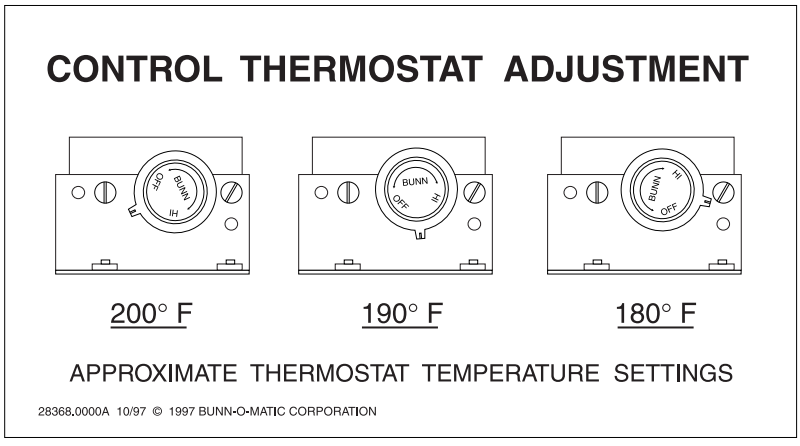
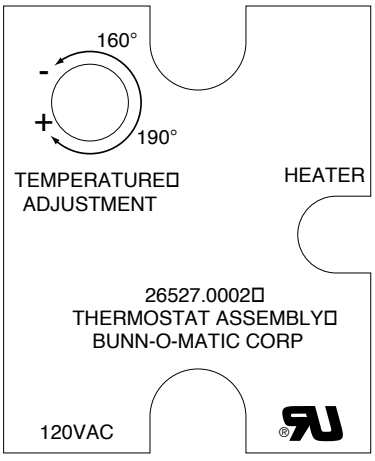


MECHANICAL THERMOSTAT
28368.0000



ELECTRONIC THERMOSTAT
26536.0002

INITIAL SET-UP

1. Locate the drip tray assembly above the dispenser nested in the packing material.
2. Remove the drip tray and the drip tray cover and set them aside.
3. Remove the water strainer assembly from the drip tray and set it aside.
4. Remove the four legs from the packaging material, apply non-skid pads to the bottom of the legs and securely install the legs in the dispenser base.

ELECTRICAL REQUIREMENTS

CAUTION - The dispenser must be disconnected from the power source until specified in *Initial Set-Up.*
The 120 volt version of this dispenser has an attached cordset. The mating connector must be a NEMA 5-15R.
The 120/208 volt and the 120/240 version of this dispenser has an attached cordset. The mating connector must be a NEMA 14-20R.
The 240 volt version of this dispenser has an attached cordset without plug.

ELECTRICAL HOOK-UP

CAUTION - Improper electrical installation will damage electronic components.

1. An electrician must provide electrical service as specified.
2. Using a voltmeter, check the voltage and color coding of each conductor at the electrical source.
3. Open the front door of the dispenser and place the heater switch in the "OFF" (upper position).
4. Connect the dispenser to the power source.
5. If plumbing is to be hooked up later be sure the dispenser is disconnected from the power source. If plumbing has been hooked up, the dispenser is ready for *Initial Fill & Heat.*

PLUMBING REQUIREMENTS

This dispenser must be connected to a **COLD WATER** system with operating pressure between 20 and 90 psi (138 and 620 kPa) from a ½" or larger supply line. A shut-off valve should be installed in the line before the dispenser. Install a regulator in the line when pressure is greater than 90 psi (620 kPa) to reduce it to 50 psi (345kPa). The water inlet fitting is ¼" flare.
NOTE - Bunn-O-Matic recommends ¼" copper tubing for installations of less than 25 feet and ⅜" for more than 25 feet from the ½" water supply line. At least 18 inches of an FDA approved flexible beverage tubing, such as reinforced braided polyethylene or silicone, before the dispenser will facilitate movement to clean the countertop. Bunn-O-Matic does not recommend the use of a saddle valve to install the dispenser. The size and shape of the hole made in the supply line by this type of device may restrict water flow.

This equipment must be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA). For models installed outside the U.S.A., you must comply to the applicable Plumbing/Sanitation Code for your area.

PLUMBING HOOK-UP

1. Securely attach the short piece of tubing on the water strainer assembly to the inlet fitting on the bottom of the dispenser.
2. Flush the water line and securely attach it to the flare fitting on the water strainer assembly.
3. Turn on the water supply.

INITIAL FILL & HEAT

CAUTION - The dispenser must be disconnected from the power source throughout the initial fill & heat, except when specified in the instructions.

1. Turn on the water supply and connect the dispenser to the power source.
2. Water will automatically flow into the tank to the proper level and then shut off. This will take less than five minutes.
3. When the tank is full of water, open the front door and place the heater switch in the "ON" (lower) position. A tank full of cold water will take approximately forty minutes for the water to heat on 120 volt versions, and twenty minutes on 120/240 and 240 volt versions.

During this waiting period, complete these dispenser set-up steps:

a. Place a set of keyholes in the splash panel over the screws beneath the hopper access door and push down gently.

b.Place the drip tray onto the supports on the splash panel. Hook the tabs on the rear of the drip tray through the holes in the splash panel. Set the drip tray cover in place.

c. Fill the hopper(s) with the dry product to be dispensed.

LIQUID LEVEL CONTROL

The system automatically maintains the hot water tank's level by energizing the refill solenoid when the water level drops below the liquid level probe. If the system has not successfully refilled in 7 1/2 minutes, a refill error occurs.

When a refill error occurs, the refill solenoid is de-energized and the rinse L.E.D. will flash about once every 5 seconds.

Once the cause of the refill error has been investigated (see the troubleshooting guide) and cured, the system can be reset by disconnecting (for at least 5 seconds) and then reconnecting the power to the machine.

RINSE TIMER

The dispenser is shipped from the factory with the rinse timer disabled. To enable the rinse timer, remove power from the dispenser, remove the lower access panel, and remove the jumper from J1 of the control board. Replace the lower access panel, and return power to the dispenser.

When enabled, the rinse timer automatically keeps track of the time since the dispenser was last run through a rinse sequence. If the dispenser detects that a rinse sequence has not been run for 8 hours, the rinse L.E.D. will flash continually. If, after an additional 4 hours (12 hours total), a rinse sequence has still not been run, the rinse L.E.D. will light continuously, and the hopper drives will be disabled until a rinse sequence has been run.

RUNNING A RINSE SEQUENCE

1. Place the rinse/run switch in the rinse position.
2. Sequentially, or simultaneously, at each of the three positions dispense for at least 10 seconds.
3. After the rinse L.E.D. has extinguished, the rinse timer is reset.
4. Return the rinse/run switch to the run position.

DISPENSER USE

1. Simply place a cup on the drip tray beneath the desired dispensing tip.
2. Press the button to froth and dispense the beverage.
3. Release the button when the cup is approximately $^{2}/_{3}$ full and allow the mixing chamber to drain.

NOTE - The mixing chamber must drain at the end of each dispense.

COLD BEVERAGE SET-UP (OPTIONAL)

Cold beverages may be dispensed from the left dispense position. Simply place the HOT/COLD switch near the left whipper chamber in the "COLD" (upper) position.

CLEANING

Refer to the decal inside the hopper access door for cleaning recommendations and procedures.
The use of a damp cloth rinsed in any mild, non-abrasive, liquid detergent is recommended for cleaning all surfaces on Bunn-O-Matic equipment.

ADJUSTMENTS

The hot or cold beverage solenoids are preset to dispense approximately $^{9}/_{10}$ ounce per second. This amount can be adjusted:

1. Disconnect the dispenser from the power source.
2. Remove the small left side access panel.
3. Rotate the control at the base of the desired solenoid(s) clockwise to decrease or counterclockwise to increase the amount of water.
4. For cold beverage adjustment remove the 1-1/2" plug on the lower left side of the dispenser and rotate the needle valve clockwise to decrease or counterclockwise to increase the amount of cold water.

HOPPER DISPENSE RATE OF PRODUCT

NOTE: The hopper dispense rates are preset at the factory. With 22 tooth gear and auger wire the preset dispense rate is approximately 3 to 5 grams per second. With 30 tooth gear and auger wire the preset dispense is approximately 5 to 7 grams per second. The hopper dispense rates can be individually programmed to a range of dispense rates from approximately 1.5 to 12 grams per second, as follows:

1. Place the rinse/run switch in the center (program) position.
2. Hold the increase/decrease switch in the desired (increase or decrease) position.
3. While holding the increase/decrease switch, press and release the dispense switch for the chamber you wish to adjust. Each time the dispense switch is pressed, the rinse L.E.D. will flash, and the motor speed for that hopper will be increased/decreased by approximately 2 1/2%.
4. Return the rinse/run switch to the run position after hopper motor speed adjustments are complete.
5. Once any of the three hopper motors has been programmed to the desired speed, either or both of the other hopper motors can be set to the same speed as follows:
   a. Place the rinse/run switch in the center (program) position.
   b. Press and hold the dispense switch that has been programmed for the correct speed.

NOTE: Care must be taken not to exceed 5 seconds, or a hopper throw test will occur.

   c. Momentarily press the dispense switch for the hopper motor to be programmed. The rinse L.E.D. will light for approximately 1 second, indicating that the speeds have been set equal.
   d. Release both dispense switches.
   e. Repeat step 5. b. through 5. d. for remaining hopper motor if desired.
   f. Return the rinse/run switch to the run position after hopper motor speed adjustments are complete.

HOPPER THROW TEST

The hopper throw rate, grams per second (g/s) or ounces per second (oz./s), can be checked by automatically running the hopper motor for 10 seconds.

1. Remove the steam collector and mixing chamber from under the hopper to be checked.
2. Position a small cup under the hopper outlet.
3. Place the rinse/run switch in the center (program) position.

HOPPER THROW TEST(cont.)

4. Press and hold the dispense switch of the appropriate chamber for 5 seconds. The hopper motor will run for 10 seconds at the programmed speed.
5. Remove the cup and weigh the dispensed product. To calculate the throw rate (g/s or oz./s), divide the total weight of the dispensed product by 10.
6. Replace the mixing chamber and steam collector, and return the rinse/run switch to the run position.

DRAINING THE HOT WATER TANK

CAUTION - The dispenser must be disconnected from the power source throughout these steps.

1. Disconnect the dispenser from the power source.
2. Open front door and place tank heater switch in the "OFF" (upper) position.
3. Shut off and disconnect the incoming water supply.
4. Remove the top panel.
5. Gently remove one of the grommets from the tank lid.
6. Insert a tube to the bottom of the tank and syphon ALL of the water out.

NOTE - The dispenser must be refilled using the INITIAL FILL & HEAT steps before reconnecting to the power source.

TROUBLESHOOTING

A troubleshooting guide is provided to suggest probable causes and remedies for the most likely problems encountered. If the problem remains after exhausting the troubleshooting steps, contact the Bunn-O-Matic Technical Service Department.

- Inspection, testing, and repair of electrical equipment should be performed only by qualified service personnel.
- All electronic components have 120 volt ac or 240 volt ac and low voltage dc potential on their terminals. Shorting of terminals or the application of external voltages may result in board failure.
- Intermittent operation of electronic circuit boards is unlikely. Board failure will normally be permanent. If an intermittent condition is encountered, the cause will likely be a switch contact or a loose connection at a terminal or crimp.
- Solenoid removal requires interrupting the water supply to the valve. Damage may result if solenoids are energized for more than ten minutes without a supply of water.
- The use of two wrenches is recommended whenever plumbing fittings are tightened or loosened. This will help to avoid twists and kinks in the tubing.
- Make certain that all plumbing connections are sealed and electrical connections tight and isolated.
- This unit is heated at all times. Keep away from combustibles.

WARNING –
- Exercise extreme caution when servicing electrical equipment.
- Unplug the dispenser when servicing, except when electrical tests are specified.
- Follow recommended service procedures
- Replace all protective shields or safety notices

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Product will not dispense	1. No water	Water lines and valves to the dispenser must be open.
	2. No power or incorrect voltage to the dispenser	(A1) Check for 120 volts across the black and white wires on two wire 120 volt dispenser. (A2) Check for 120 volts across the red and white wires and the black and white wires and 240 volts across the red and black wires on three wire 120/240 volt dispenser. (A3) Check for 240 volts across the white and black wires on two wire 240 volt dispenser. (B) Check circuit breakers or fuses.
	3. Dispense Switch	Refer to *Service* - Dispense Switch for testing procedure. See page 22
	4. Dispense Solenoid Valve (Hot or Cold)	Refer to *Service* - Dispense Solenoid Valve for testing procedures. See page 33 or 34
	5. Solenoid Valve (Inlet)	Refer to *Service* - Solenoid Valve (Inlet) for testing procedures. See page 35
	6. Control Board	Refer to *Service* - Control Board and Probe for testing procedures. See page 18
	7. Overflow Protection Switch	Refer to *Service* - Overflow Protection Switch for testing procedures. See page 31
	8. Auger Drive	Refer to *Service* - Auger Drive. See page 13

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Product will not dispense (cont.)	9. Water Strainer	(A) Direction of flow arrow must be pointing towards dispenser. (B) Remove the strainer and check for obstructions. Clear or replace.
	10. Lime build-up **CAUTION -** Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	Inspect the tank assembly for excessive lime deposits. Delime as required.
	11. Rinse cycle not run for 12 hours.	Refer to *Operations* - Rinse Timer. See page 5
Water is not hot	1. Limit Thermostat **CAUTION -** Do not eliminate or bypass limit thermostat. Use only BOM replacement part #29329.1000	Refer to *Service* - Limit Thermostat for testing procedures. See page 30
	2. Control Thermostat	Refer to *Service* - Control Thermostat for testing procedures. See page 20
	3. Tank Heater	Refer to *Service* - Tank Heater for testing procedures. See page 36
	4. Tank Heater Switch	Refer to *Service* - Tank Heater Switch for testing procedures. See page 38
Spitting or excessive steaming	1. Lime build-up **CAUTION -** Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	Inspect tank assembly for excessive lime deposits. Delime as required.
	2. Control Thermostat	Refer to *Service* - Control Thermostat for testing procedures. See page 20

TROUBLESHOOTING (cont.)

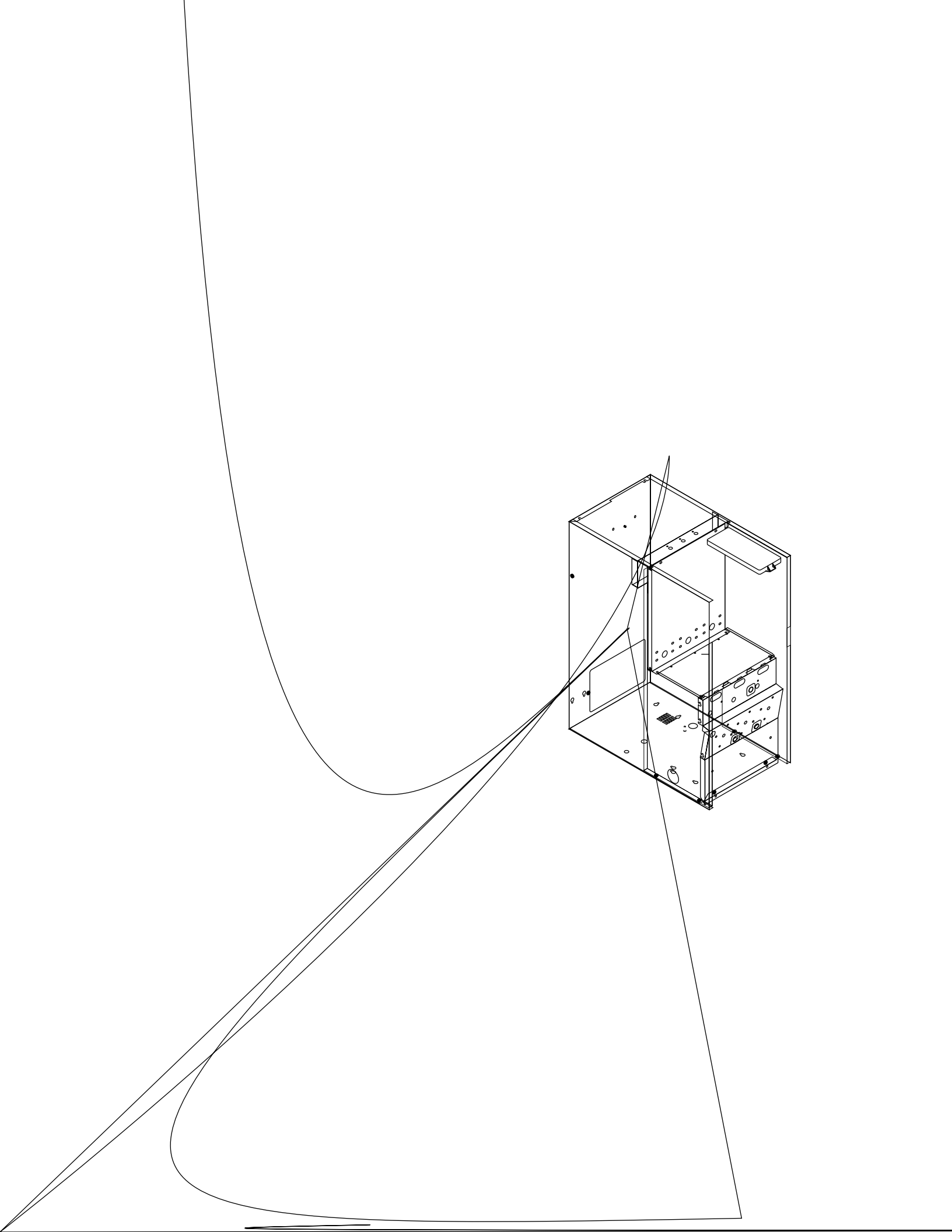
PROBLEM	PROBABLE CAUSE	REMEDY
Dripping from dispense tip	1. Lime build-up **CAUTION -** Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	Inspect the tank assembly for excessive lime deposits. Delime as required.
	2. Dispense Solenoid Valve (Hot or Cold)	Remove the dispense solenoid valve and clear any obstructions. Rebuild or replace the valve if necessary. See page 33 or 34
Water flows into tank continuously	1. Control Board	Refer to *Service* - Control Board and Probe for testing procedures. See page 18
	2. Solenoid Valve (Inlet)	Refer to *Service* - Solenoid Valve (Inlet) for testing procedures. See page 35
	3. Overflow Protection Switch	Refer to *Service* - Overflow Protection Switch for testing procedures. See page 31
Product overflows container	1. Dispense Switch	Refer to *Service* - Dispense Switch for testing procedures. See page 22
	2. Dispense Solenoid Valve (Hot or Cold)	Remove the solenoid valve and clear any obstructions. Rebuild or replace the valve if necessary. See page 33 or 34

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Weak product	1. Water temperature	Place an empty container beneath the dispense tip. Initiate a dispense cycle and check the water temperature immediately below the dispense tip with a thermometer. (A) Reading for mechanical thermostat models should be 180°F(82°C) to 200°F (93°C) (see thermostat temperature settings decal in *USER NOTICES* on page 3. (B) Reading for electronic thermostat should be185°F(85°C) to190°F (88°C). Adjust the control thermostat to increase or decrease the water temperature. Replace if necessary.
	2. Whipper Motor	Refer to *Service* - Whipper Motor for testing procedure. See page 25
	3. Frother	Refer to *Service* - Frother Components. See page 24
	4. Dispense Solenoid Valve (Hot or Cold)	Refer to *Service* - Dispense Solenoid Valve for test procedures. See page 33 or 34
	5. Auger Drive	Refer to *Service* - Auger Drive Components. See page 13
	6. Auger Spring	Refer to *Service* - Auger Drive Components. See page 13
	7. Auger Motor	Refer to *Service* - Auger Drive Components. See page 16
	8. Rinse/Run Switch	Refer to *Service* - Rinse/Run Switch for test procedures. See page 32
	9. Rinse Timer	Refer to *Operations* - Rinse Timer. See page 5

TROUBLESHOOTING (CONT.)

PROBLEM	PROBABLE CAUSE	REMEDY
Dispenser is making unusual noises	1. Plumbing Lines	Plumbing lines should not be resting on the counter top.
	2. Water Supply	(A) The dispenser must be connected to a cold water line
		(B) Water pressure to the dispenser must not exceed 90 psi (620 kPa) Install a regulator if necessary to lower the working pressure to approximately 50 psi (345 kPa).
	3. Tank Heater	Remove and clean lime off the tank heater. See page 36
Excess dust	1. Fan	Refer to *Service* - Fan for testing procedures. See page 24
	2.Control Board	Refer to *Service* - Control Board for testing procedures. See page 18
Display not lit	1. Lamp	Refer to *Service* - Lamp, see page 28 for lamp replacement.
	2. Lamp Holder	Refer to *Service* - Lamp Holder for testing procedures. See page 28
	3. Starter - Lamp	Refer to *Service* - Starter for testing procedures. See page 29
	4. Ballast	Refer to *Service* - Ballast for testing procedures. See page 17



SERVICE

AUGER DRIVE COMPONENTS (CONT.)

14. Install hopper assy (20) in the dispenser by sliding hopper assy in the guides on the hopper support plate (19) until the slot in the bottom rear the hopper seats against the shoulder screw (18) in the hopper support plate.

Removal, Cleaning and Replacement:

Hopper & Auger (Late Models):

1. Open the dispenser door and raise the top front cover.
2. Lift the front edge of hopper assy (17) over the tab on hopper support plate (16) and slide hopper assembly out the front of the dispenser.
3. Remove hopper lid (1) and empty product.
4. Pull off the ejector elbow (10).
5. Remove agitator disk assy (2) by pushing out on the side of the hopper, rotating the agitator disk assy out of the mounting hubs and lifting the agitator disk assy from the hopper. Remove the mixing blades (4) from the agitator disk by tugging sharply.
6. Remove auger (9) by pulling it out the front of the hopper (8).
7. Remove the auger drive bracket by turning it clockwise whilde holding the auger drive shaft firmly.
8. Slide auger drive shaft (5) from auger drive shaft bushing (3) and remove from hopper (8).
9. Remove locknut (7) from auger drive shaft bushing (3) and remove auger drive shaft bushing from hopper (8).
10. Wash components in a mild solution of dish detergent using a bristle brush when needed.
11. Rinse and dry each item thoroughly.
12. Check for damaged or broken components, replace any if necessary and reassemble hopper assembly.
13. Install hopper assy (17) in the dispenser by sliding hopper assy in the guides on the hopper support plate (16) until the slot in the bottom rear the hopper seats against the shoulder screw (15) in the hopper support plate.

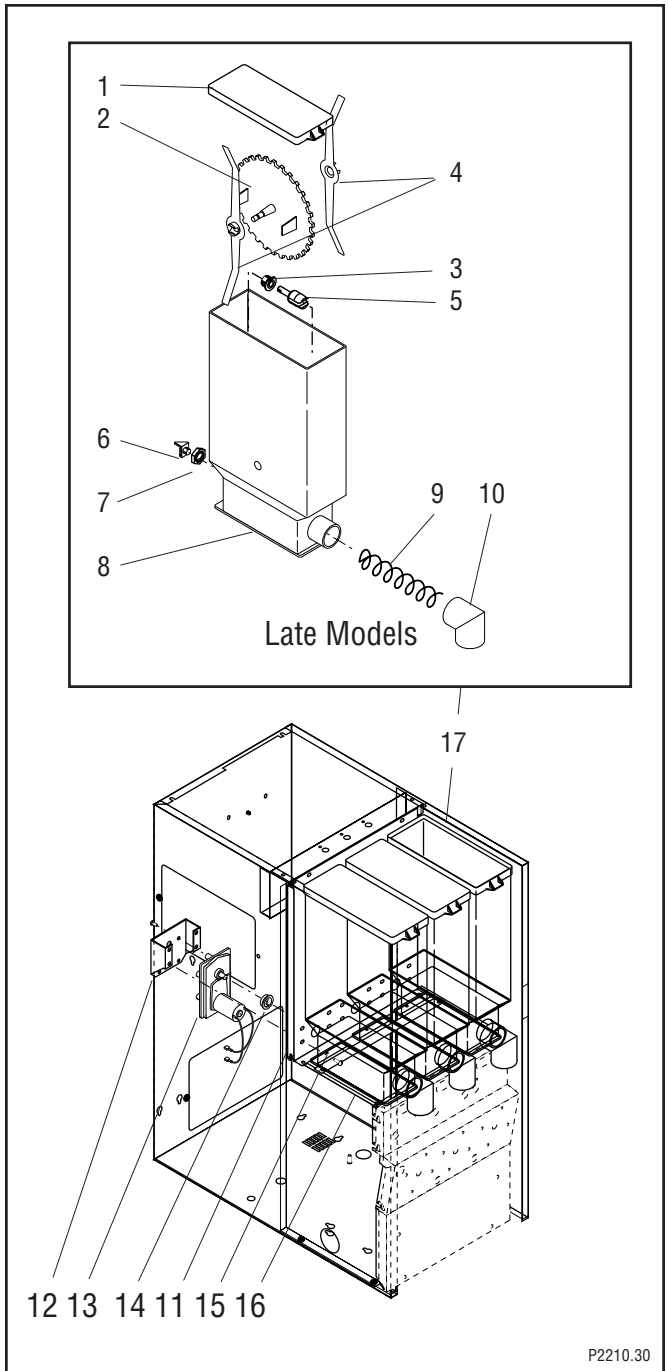


FIG. 3 AUGER DRIVE & HOPPER DISASSEMBLY

1. Hopper Lid
2. Agitator Disk Assy
3. Auger Drive Shaft Bushing
4. Mixing Blade
5. Auger Drive Shaft
6. Auger Drive Bracket
7. Locknut
8. Hopper
9. Auger Wire
10. Ejector Elbow
11. Auger Motor Mounting Panel
12. Auger Motor Bracket
13. Auger Motor
14. Dust Seal
15. Shoulder Screw
16. Hopper Support plate
17. Hopper Assembly

SERVICE (cont.)

AUGER DRIVE COMPONENTS (cont.)

Auger Drive Motor (Refer to Fig. 2 & 3):

1. Remove all hopper assemblies (20,17) and set aside for reassembly.
2. Remove the four #8-32 screws securing the hopper support plate (19,16), remove plate and set aside for reassembly.
3. Remove the four #8-32 locking screws, located inside the dispenser housing on the front of the auger motor mounting panel (14,11), securing auger motor mounting bracket (15,12) and auger motor (16,13) to the rear of the auger motor mounting panel (14,11).
4. Disconnect the wires from the auger motor (16,13) to be removed.
5. Remove auger motor mounting bracket (15,12), auger motor (16,13) and dust seal (17,14) as an assembly.
6. Remove dust seal (17,14) from auger motor (16,13).
7. Remove the four #8-32 screws securing the auger motor to the auger motor mounting bracket.
8. Remove auger motor and discard.
9. Using four #8-32 screw install new auger motor (16,13) on mounting bracket (15,12).
10. Install dust seal (17,14) on auger motor shaft.
11. Using four #8-32 locking screws install auger motor, dust seal and mounting bracket to the rear of the auger motor mounting panel (14,11)
12. Reconnect the wires to the terminals on the auger motor.
13. Install hopper support plate (19,16) and all hopper assemblies (20,17).
14. Refer to Fig. 4 when reconnecting wires.

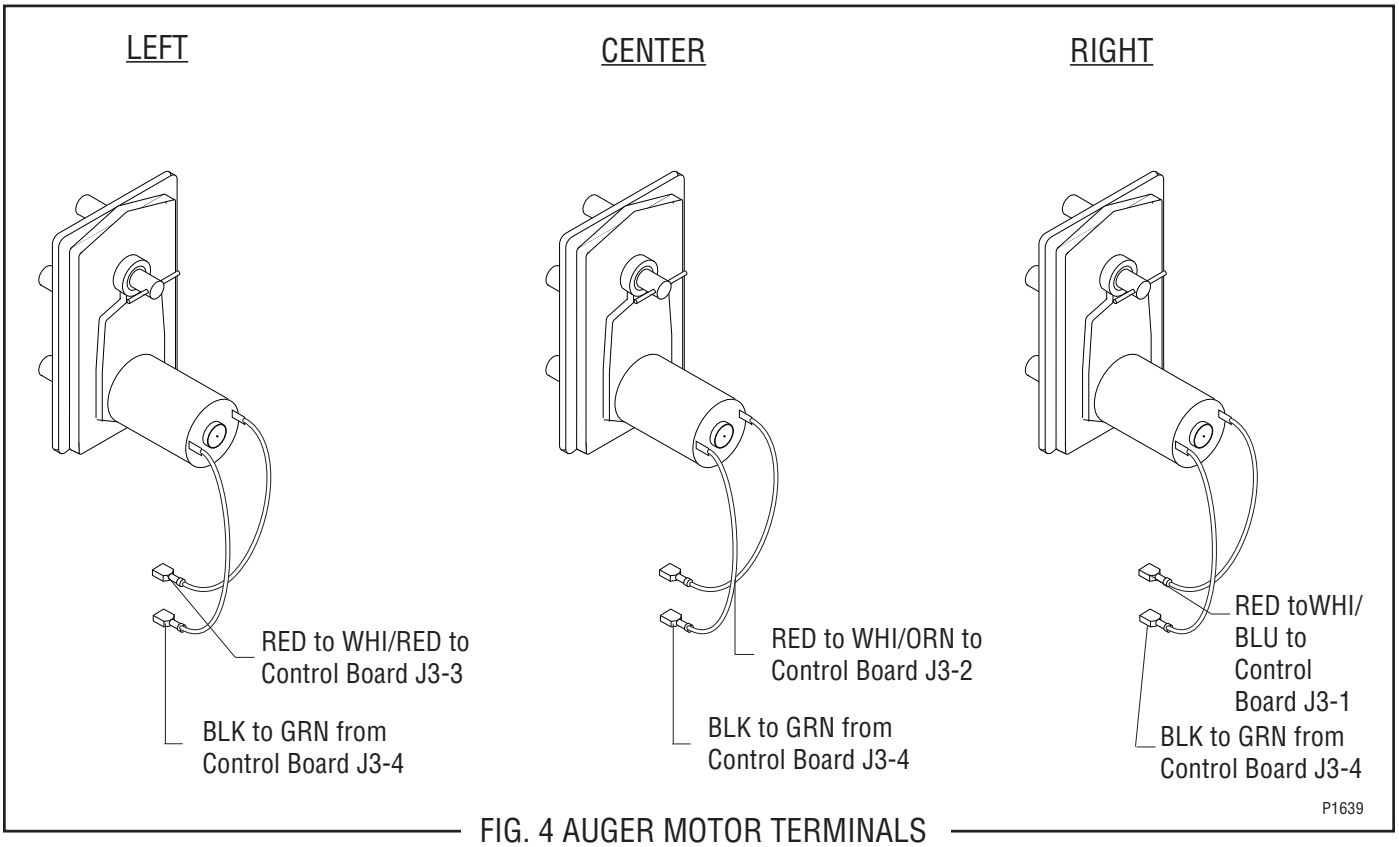
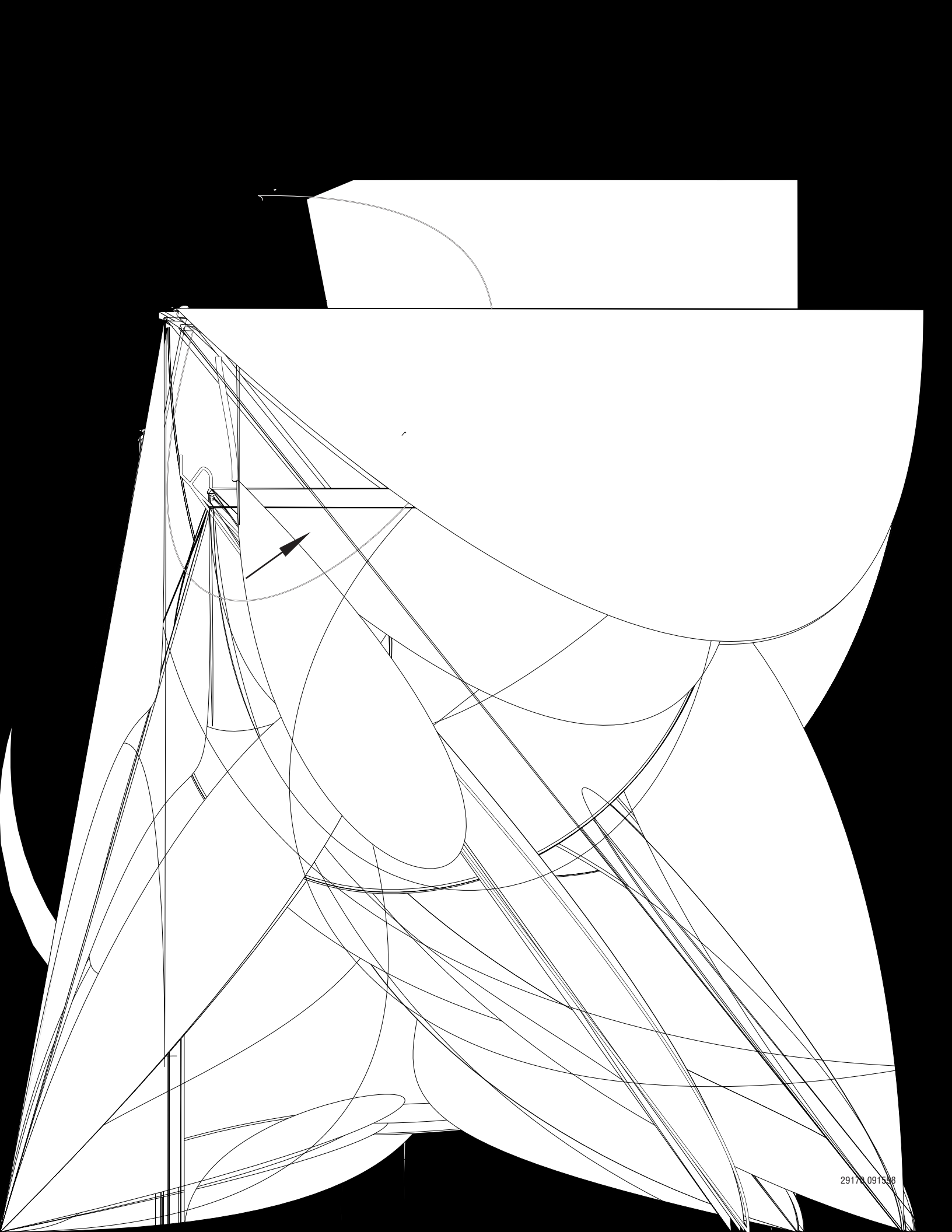

LEFT
CENTER
RIGHT
RED to WHI/RED to Control Board J3-3
BLK to GRN from Control Board J3-4
RED to WHI/ORN to Control Board J3-2
BLK to GRN from Control Board J3-4
RED toWHI/ BLU to Control Board J3-1
BLK to GRN from Control Board J3-4
P1639

FIG. 4 AUGER MOTOR TERMINALS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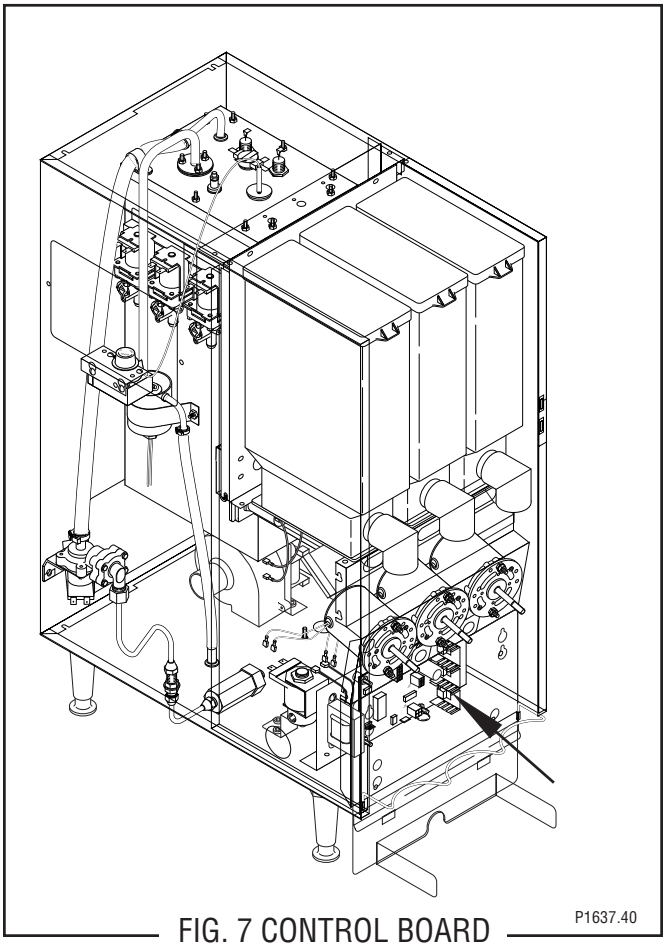
SERVICE (cont.)

CONTROL BOARD



P1637.40

FIG. 7 CONTROL BOARD

Location:

The Control Board is located behind the lower front access cover mounted on the component bracket.

Test Procedure:

Liquid Level Control Circuitry:

1. Disconnect the dispenser from the power source.
2. Disconnect the six pin connector from J3 of the control board.
3. With a voltmeter, check the voltage across pins 5 & 6 of the six pin connector on the wiring harness. Connect the dispenser to the power source. The indication must be 24 volts ac.
4. Disconnect the dispenser from the power source.

If voltage is present as described, proceed to step 5. If voltage is not present as described, refer to the *Wiring Diagrams* and check the dispenser wiring harness.

5. Reconnect the six pin connector of the wiring harness to J3 of the control board.
6. Disconnect the four pin connector from J4 of the control board.
7. With a voltmeter, check the voltage across pins 1 & 4 of the four pin connector on the wiring harness. Connect the dispenser to the power source. The indication must be:
   a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt and 120/240 volt models.
   b) 240 volts ac for two wire 240 volt models.
8. Disconnect the dispenser from the power source.

If voltage is present as described, proceed to step 9. If voltage is not present as described, refer to the *Wiring Diagrams* and check the dispenser wiring harness.

9. Reconnect the four pin connector of the wiring harness to J4 of the control board.
10. Disconnect the ten pin connector from J2 of the control board.
11. Carefully connect a piece of insulated jumper wire to pin 10 (top right) of J2 on the control board. Keep the other end of this wire away from any metal surfaces of the dispenser.
12. With a voltmeter, check the voltage across the terminals of the inlet solenoid valve. Connect the dispenser to the power source. The indication must be:
    a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt and 120/240 volt models.
    b) 240 volts ac for two wire 240 volt models after a delay of approximately 10 seconds.
13. Touch the free end of the jumper wire to the dispenser housing. The indication must be 0.
14. Move the jumper wire away from the housing. The indication must, again, be:
    a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt and 120/240 volt models.
    b) 240 volts ac for two wire 240 volt models after a delay of approximately 5 seconds.
15. Disconnect the dispenser from the power source and remove the jumper wire.

If voltage is present as described, proceed to step 16. If the voltage is not present as described, replace the control circuit board.

16. Reconnect the ten pin connector of the wiring harness to J2 of the control board.

SERVICE (cont.)

CONTROL BOARD (cont.)

17. Gently pull the liquid level probe out of the tank lid and inspect for corrosion. Replace it if necessary.
18. Place the probe so that neither end is in contact with any metal surface of the dispenser.
19. With a voltmeter, check the voltage across the terminals of the inlet solenoid valve. Connect the dispenser to the power source. The indication must be:
    a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt and 120/240 volt models.
    b) 240 volts ac for two wire 240 volt models after a delay of approximately 10 seconds.
20. Move the probe's flat end to the dispenser housing. The indication must be 0.
21. Move the probe's flat end away from the housing. The indication must, again, be:
    a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt and 120/240 volt models.
    b) 240 volts ac for two wire 240 volt models after a delay of approximately 5 seconds.
22. Disconnect the dispenser from the power source.

If the voltage is present as described, re-install the probe. The liquid level control circuitry is operating properly.
If the voltage is not present as described, check the pink probe wire and green tank wire for continuity.

Hopper Motor Control Circuitry:

1. Disconnect the dispenser from the power source.
2. Disconnect the six pin connector from J3 of the control board.
3. With a voltmeter, check the voltage across pins 5 & 6 of the six pin connector on the wiring harness. Connect the dispenser to the power source. The indication must be 24 volts ac.
4. Disconnect the dispenser from the power source.

If voltage is present as described, proceed to step 5.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the dispenser wiring harness.

5. Reconnect the six pin connector of the wiring harness to J3 of the control board.
6. Check that the rinse/run switch is in the run position.
7. With a voltmeter, check the voltage across the red (+) terminal and the black (-) terminal of the auger motor. Connect the dispenser to the power source. Press and hold the appropriate dispense switch. After a delay of about .6 seconds, the indication must be between +4.0 and +24.5 volts dc.

If the voltage is present as described, the hopper motor control circuitry is operating properly.
If the voltage is not present as described, replace the control circuit board.

Removal and Replacement:

1. Disconnect the three plugs on the main wiring harness from the connectors on the control board.
2. Remove the four #6-32 keps nuts securing the control board to the component bracket.
3. Remove control board and discard.
4. Install new control board on the component bracket using four #6-32 keps nuts.
5. Reconnect the three plugs on the main harness to the connectors on the control board.

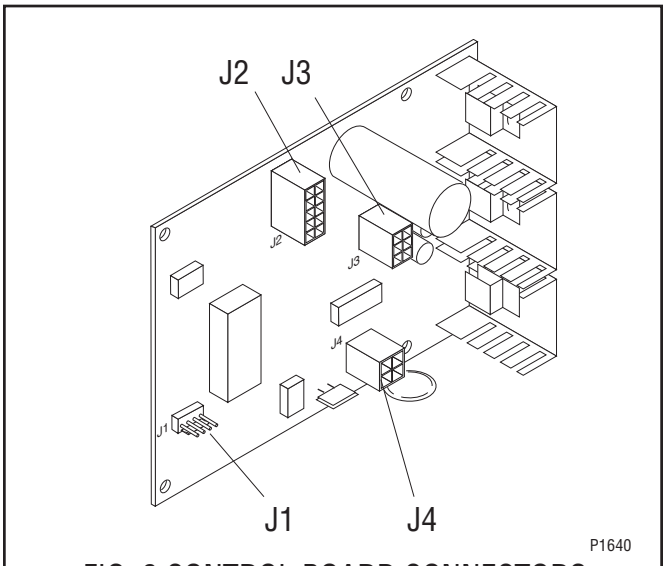


FIG. 8 CONTROL BOARD CONNECTORS

SERVICE (cont.)

CONTROL THERMOSTAT

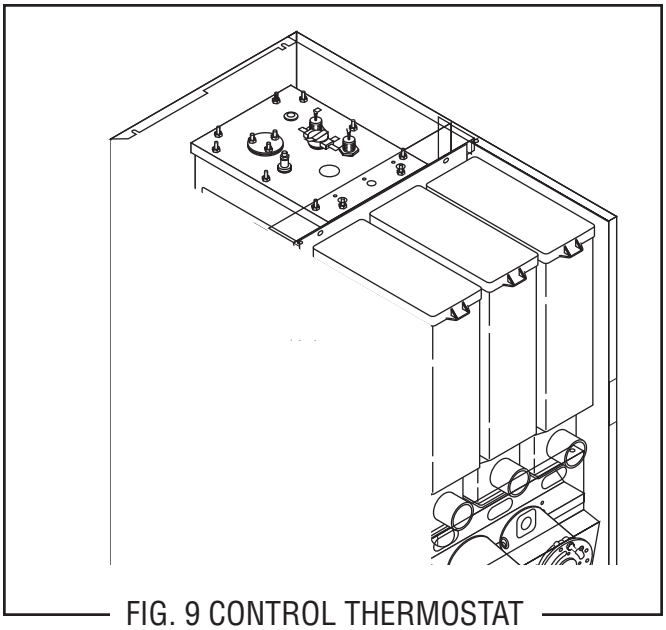


FIG. 9 CONTROL THERMOSTAT

Location:

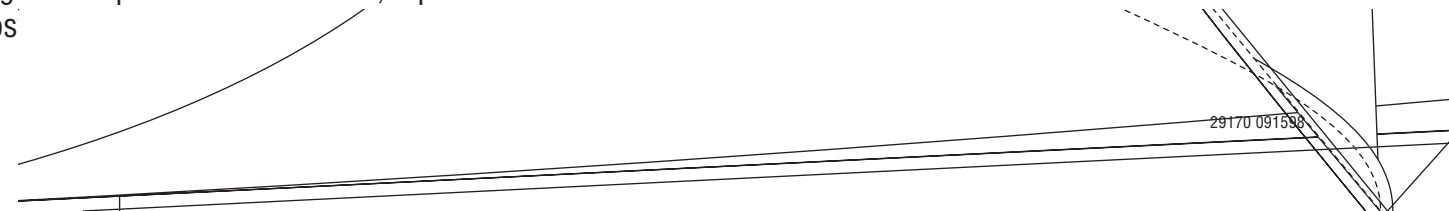
The control thermostat (mechanical or electronic) is located inside the dispenser on the upper left side of the housing.

Test Procedure:

Mechanical Thermostat:

1. Disconnect the dispenser from the power source.
2. Disconnect the black wire of the control thermostat from the black lead from the limit thermostat.
3. Remove bulb from the tank.
4. With a voltmeter, check the voltage across black wire on the control thermostat and the white or red wire on the tank heater with the tank heater switch in the “ON” (lower) position. Connect the dispenser to the power source. The indication must be:
   a) 120 volts ac for two wire 120 volt models.
   b) 208 volts ac for three wire 120/208 volt models.
   c) 240 volts ac for two wire 240 volt models and three wire 120/240 volt models.
5. Disconnect the dispenser from the power source.

If voltage is present as described the control thermostat is operating properly. Reinstall bulb into the tank. If voltage is not present as described, replace the thermos



SERVICE (cont.)

CONTROL THERMOSTAT (cont.)

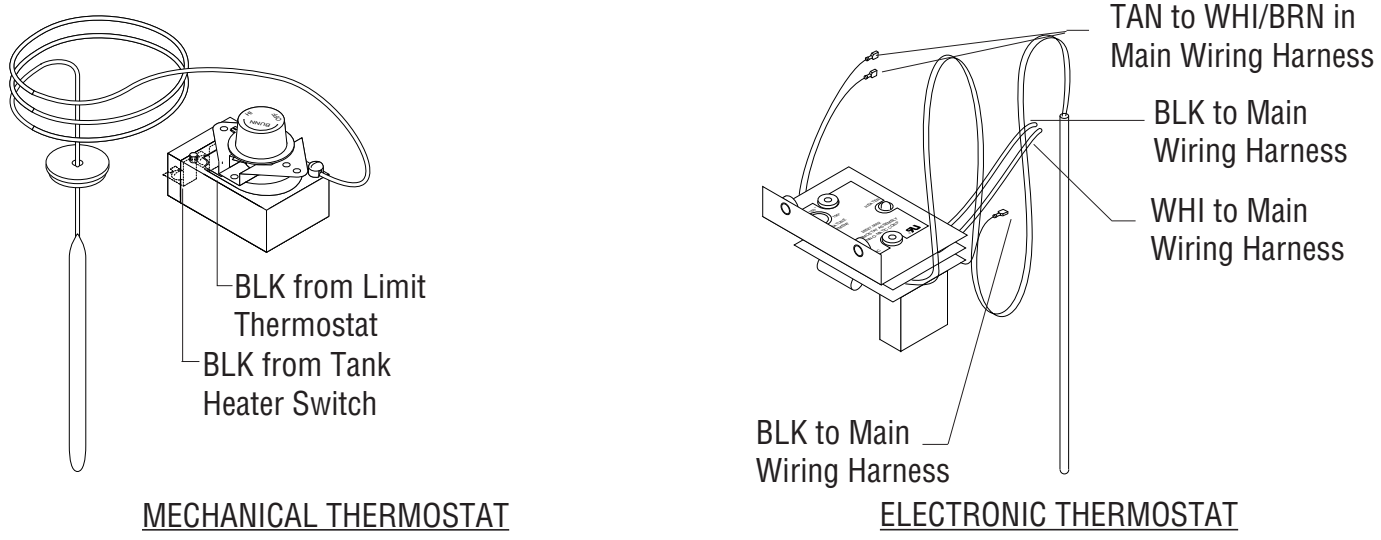

BLK from Limit Thermostat
BLK from Tank Heater Switch
TAN to WHI/BRN in Main Wiring Harness
BLK to Main Wiring Harness
WHI to Main Wiring Harness
BLK to Main Wiring Harness
MECHANICAL THERMOSTAT
ELECTRONIC THERMOSTAT

FIG. 10 THERMOSTAT TERMINALS P1448

SERVICE (cont.)

DISPENSE SWITCH

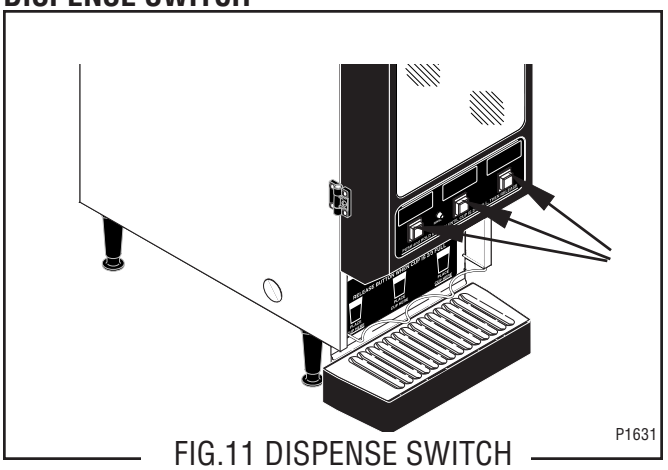


FIG.11 DISPENSE SWITCH

Location:

The dispense switches are located on the lower outside of the dispenser door.

Test Procedure:

1. Disconnect the dispenser from the power source.
2. Open the dispenser door and remove the bottom door cover.
3. Disconnect the wires from the door interconnect wiring harness to the dispense switch to be tested.
4. Check for voltage across the black and red/black wires for the right dispense switch, black and red/white wires for the center dispense switch or the black and red wires for the left dispense switch from the door interconnect wiring harness. Connect the dispenser to the power supply. The indication must be:
   a) 120 volts ac for two wire 120 volt models, 120/208 volt and 120/240 volt models.
   b) 240 volts ac for two wire 240 volt models.
5. Disconnect the dispenser from the power source.

If voltage is present as described, proceed to #6.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the dispenser wiring harness.

6. With a voltmeter, check the voltage across the blue/black (+) and orange (-) wires for the right dispense switch, black/white (+) and orange (-) wires for the center dispense switch, or blue/white (+) and orange (-) for the left dispense switch from the door interconnect wiring harness. Connect the dispenser to the power source. The indication must be +5 volts dc.

If voltage is present as described, proceed to #7.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the dispenser wiring harness.

7. Check for continuity across the terminals (top right to top left; bottom right to bottom left) of the dispense switch with the switch in the "ON" position. Continuity must not be present when the switch is in the "OFF" (released) position.

If continuity is present as described, reconnect the connector to the door interconnect wiring harness, the switch is operating properly.
If continuity is not present as described, replace the switch.

Removal and Replacement:

1. Open the dispenser door.
2. Remove the five #6-32 screws securing the bottom door cover and remove cover.
3. Disconnect the wires on the dispense switch to be removed from the door interconnect wiring harness.
4. Compress the clips inside the door on the dispense switch and gently push the switch through the opening.
5. Push new switch into the opening and spread the clips to hold the switch in the door.
6. Reconnect the wires to the dispense switch from door interconnect wiring harness.
7. Reinstall the door bottom cover using five #6-32 screws.
8. Refer to Fig. 12 when reinstalling wires.

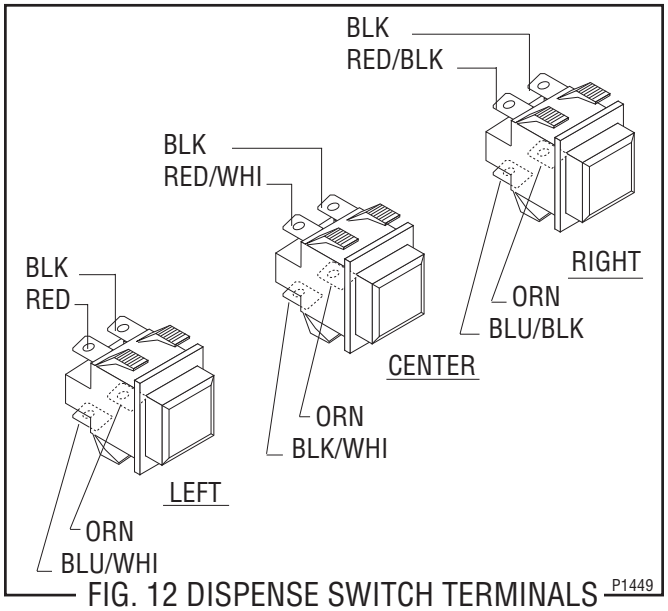


FIG. 12 DISPENSE SWITCH TERMINALS

SERVICE (cont.)

FROTHER AND WHIPPER MOTOR (cont.)

ward and at the same time twisting it clockwise.

6. Pull the mixing chamber (2) out of the whipper chamber (4).
7. Remove the two #4-40 screws securing the fan baffle(13) to the whipper motor mouting panel and remove fan baffle. Set aside for reassembly.
8. Remove dispense tip (3) and twist the whipper chamber (4) clockwise and pull it off the whipper chamber receptacle (8).
9. Pull the frother (6) off the motor shaft. Notice the flat side on the shaft and the matching flat inside the frother. It is important that these two flats are lined up when reassembling.
10. Slip the o-ring (5) off the whipper chamber receptacle (8).
11. Remove the two nuts (7) securing whipper chamber receptacle (8) and whipper motor (10) to the front panel.

NOTE: To remove the recptacle only, rotate clockwise until the receptacle clears the nuts (7) and slides off of the motor shaft.

12. Slide the receptacle with seal off of the motor shaft.
13. Slide the slinger (9) off of the motor shaft.
14. Disconnect the black leads on the motor (10) from the main wiring harness.
15. Remove motor and discard.
16. Install new motor (10) on rear of front panel and secure with two nuts (7) and connect black leads on the motor to the main wiring harness. Refer to Fig. 17 when reconnecting wires
17. Slide slinger (9) onto the motor shaft flush against the front panel.
18. Wash remaining components in a mild solution of dish detergent using a bristle brush.
19. Rinse thoroughly and allow to dry before reinstalling in the dispenser.
20. Slide whipper chamber receptacle with seal (8) and o-ring (5) on to the motor shaft.
21 Rotate the receptacle with seal (8) counterclockwise until it snaps into place on the motor mounting nuts (7).
22. Push frother (6) onto the motor shaft, making sure the flat in the frother (6) lines up with the flat on the motor shaft.
23. Install whipper chamber (4) on the whipper chamber receptacle (8) by twisting counterclockwise until the tabs on the whipper chamber (4) lock with the tabs on the whipper chamber receptacle (8). Be sure dispense port is pointing down.
24. Install dispense tip (3) into the bottom of the whipper chamber (4).
25. Using two #4-40 screws secure the fan baffle to the whipper motor mounting panel.
26. Install vacuum hose (12) on fan baffle (13).
27. Install hopper support panel using four #8-32 screws.
28. Slip the mixing chamber (2) onto the mixing chamber water inlet tube far enough so the mixing chamber (2) will seat inside the whipper chamber (4).
29. Install the steam collector (1) onto the mixing chamber (2) by pushing down and toward the dispenser while twisting until the flange on the steam collector lines up with the slot in the front panel.
30. Install hopper assembly in the dispenser by sliding hopper assembly on the hopper support panel until the slot in the bottom rear of the hopper seats against the shoulder screw in the hopper support panel.

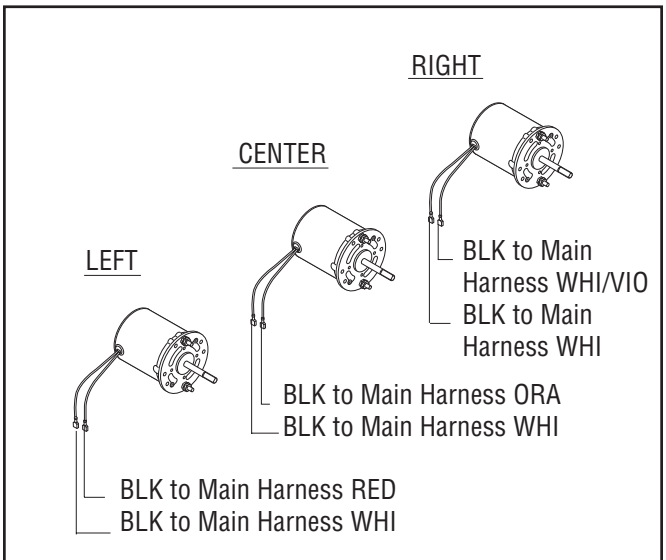
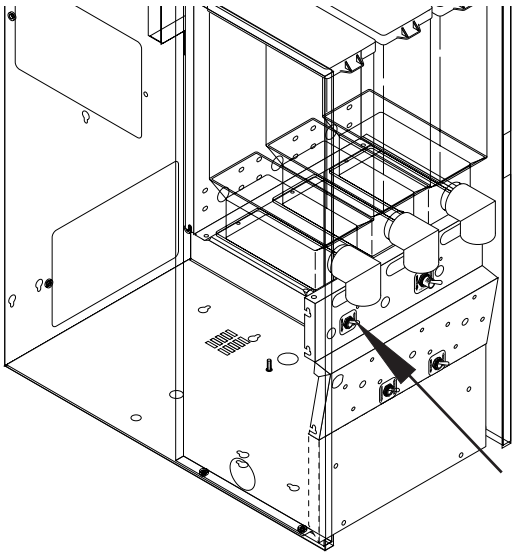


FIG.17 WHIPPER MOTOR TERMINALS P1451.40

SERVICE (cont.)

HOT/COLD SWITCH (Optional)



P1642.40

FIG. 18 HOT/COLD SWITCH

Location:

The hot/cold switch is located on the left side of the whipper motor mounting panel.

Test Procedure:

1. Disconnect the dispenser from the power source.
2. Disconnect the four pin plug from the hot/cold switch and the four pin connector on the main wiring harness.
3. Press the left dispense switch on the door and, with a voltmeter, check the voltage across the white wire (pin 4) and red wire (pin 2) in the four pin connector on the main wiring harness. Connect the dispenser to the power source. The indication must be:
   a) 120 volts ac for two wire 120 volt models, and three wire 120/208 volt and 120/240 volt models.
   b) 240 volts ac for two wire 240 volt models.
4. Disconnect the dispenser from the power source.

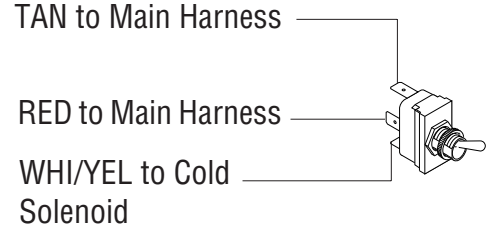
If voltage is present as described, reconnect the four pin plugs and proceed to #5.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the main wiring harness.

5. Disconnect the wires from the switch terminals.
6. With the switch in the "Cold" (upper) position check for continuity between the center terminal and the bottom terminal. With the switch in the "Hot" (lower) position check for continuity between the center terminal and the upper terminal.

If continuity is present as described, the hot/cold switch is operating properly.
If continuity is not present as described, replace the switch.

Removal and Replacement:

1. Remove all wires from the switch terminals.
2. Remove the mounting nut on the front of the whipper motor mounting panel.
3. Remove the hot/cold switch from the rear of the front panel and discard.
4. Reconnect the wires to the terminals on the rear of the new switch.
5. Push new hot/cold switch through the hole on the left side of the whipper motor mounting panel and secure with mounting nut.
6. Refer to Fig. 19 when reconnecting the wires.



P1208

FIG. 19 HOT/COLD SWITCH TERMINALS

SERVICE (cont.)

INCREASE/DECREASE SWITCH

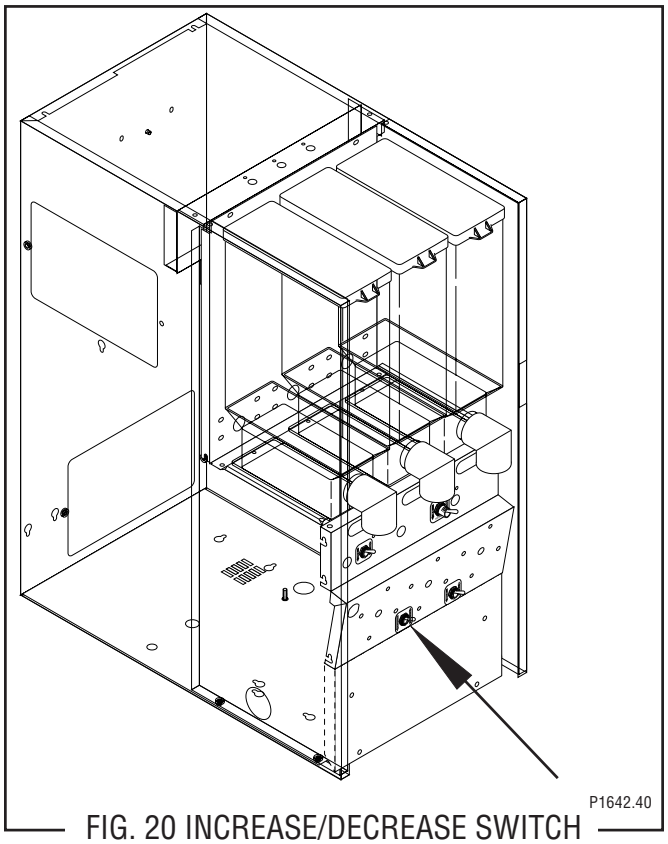


FIG. 20 INCREASE/DECREASE SWITCH

Location:

The increase/decrease switch is located on the lower left front of the whipper motor mounting panel.

Test Procedure:

1. Disconnect the dispenser from the power source.
2. Disconnect the wires from the switch terminals.
3. Check for continuity between the center terminal and upper terminal with switch in the decrease (lower) position. Check for continuity between the center terminal and the lower terminal with the switch in the increase (upper) position. Continuity must not be present when the switch is in the center position.

If continuity is present as described, the switch is operating properly.
If continuity is not present as described, replace the switch.

Removal and Replacement:

1. Open the dispenser door.
2. Remove the facenut securing the increase/decrease switch the whipper motor mounting panel.
3. Remove switch with wires attached from the back side of the whipper motor mounting panel.
4. Disconnect the wires from the switch and discard the switch.
5. Refer to Fig. 21 when connecting the wires to the new switch.
6. Install new switch with wires attached through the hole in the whipper mounting panel and secure with facenut.

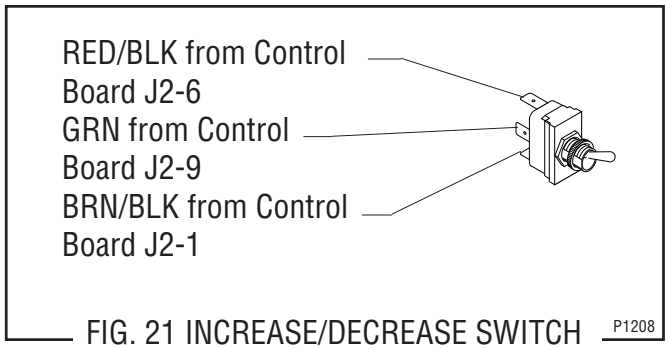


FIG. 21 INCREASE/DECREASE SWITCH TERMINALS

SERVICE (cont.)

LAMP HOLDER

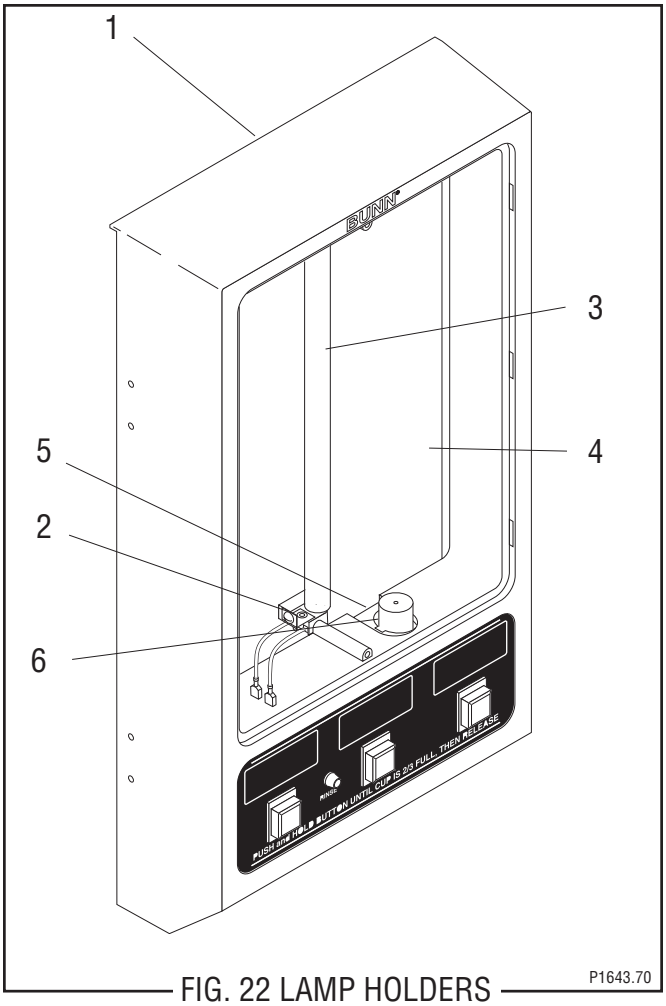


FIG. 22 LAMP HOLDERS

1. Door Assy
2. Lamp Holders
3. Lamp
4. Upper Panel
5. Lower Panel
6. Starter W/Socket

Location:

The lamp holders are located on the front of the upper panel behind the display panel.

Test Procedure:

1. Disconnect the dispenser from the power source.
2. Remove upper door panel (4) and disconnect the door wiring harness from the leads on the lamp holders.
3. Remove lamp from lamp holders.
4. Check for continuity on each lead of the lamp holders.

If continuity is present as described, lamp holders are operating properly.
If continuity is not present as described replace the lamp holder.

Removal and Replacement:

1. Open dispenser door (1).
2. Remove the five #6-32 screws securing lower door panel (5) to the door (1) and remove cover.
3. Disconnect the door wiring harness from the door interconnect wiring harness.
4. Remove five #6-32 screws securing the upper door panel (4) to the door (1).
5. Remove the upper door cover (4), lamp (3), lamp holders (2) and door wiring harness as an assembly.
6. Disconnect the wires from the lamp holder to be replaced from the door wiring harness.
7. Rotate lamp (3) 90° and remove from lamp holders (2).
8. Remove the #6-32 screw securing the lamp holder (2) to be removed, remove lamp holder (2) and discard.
9. Install new lamp holder (2) and secure with a #6-32 screw.
10. Connect the wires on the new lamp holder to the door wiring harness.
11. Install lamp (3) into lamp holders (2) and turn 90° until the pins snap in place.
12. Install upper door panel (4), lamp (3), lamp holders (2) and door wiring harness as an assembly using five #6-32 screws.
13. Reconnect the plug on the door wiring harness to the connector on the door interconnect wiring harness.
14. Install the door lower panel (5) using five #6-32 screws.

LAMP REPLACEMENT (Refer to Fig. 22)

1. Remove the outside window and display graphic.
2. Remove the two #4-40 screws securing the inside window to the door and remove window.
3. Rotate lamp (3) 90° and remove from the lamp holders (2).
4. Insert new lamp (3) into lamp holders (2) and turn 90° until the pins snap in place.
5. Using two #4-40 screws secure the inside window to the door.
6. Install outside window and slide display graphic down between the inside window and the outside window.

SERVICE (cont.)

LAMP STARTER and SOCKET

Location:

The lamp starter (6) is located inside the door assy (1) on the top of the door lower panel (5).

Test Procedures:

1. Disconnect the dispenser from the power source.
2. Disconnect the starter leads from the door wiring harness.
3. Remove lamp starter from starter socket.
4. Check for continuity on each lead of the starter socket.

If continuity is present as described the starter socket is operating properly.
If continuity is not present as described replace the the starter socket.

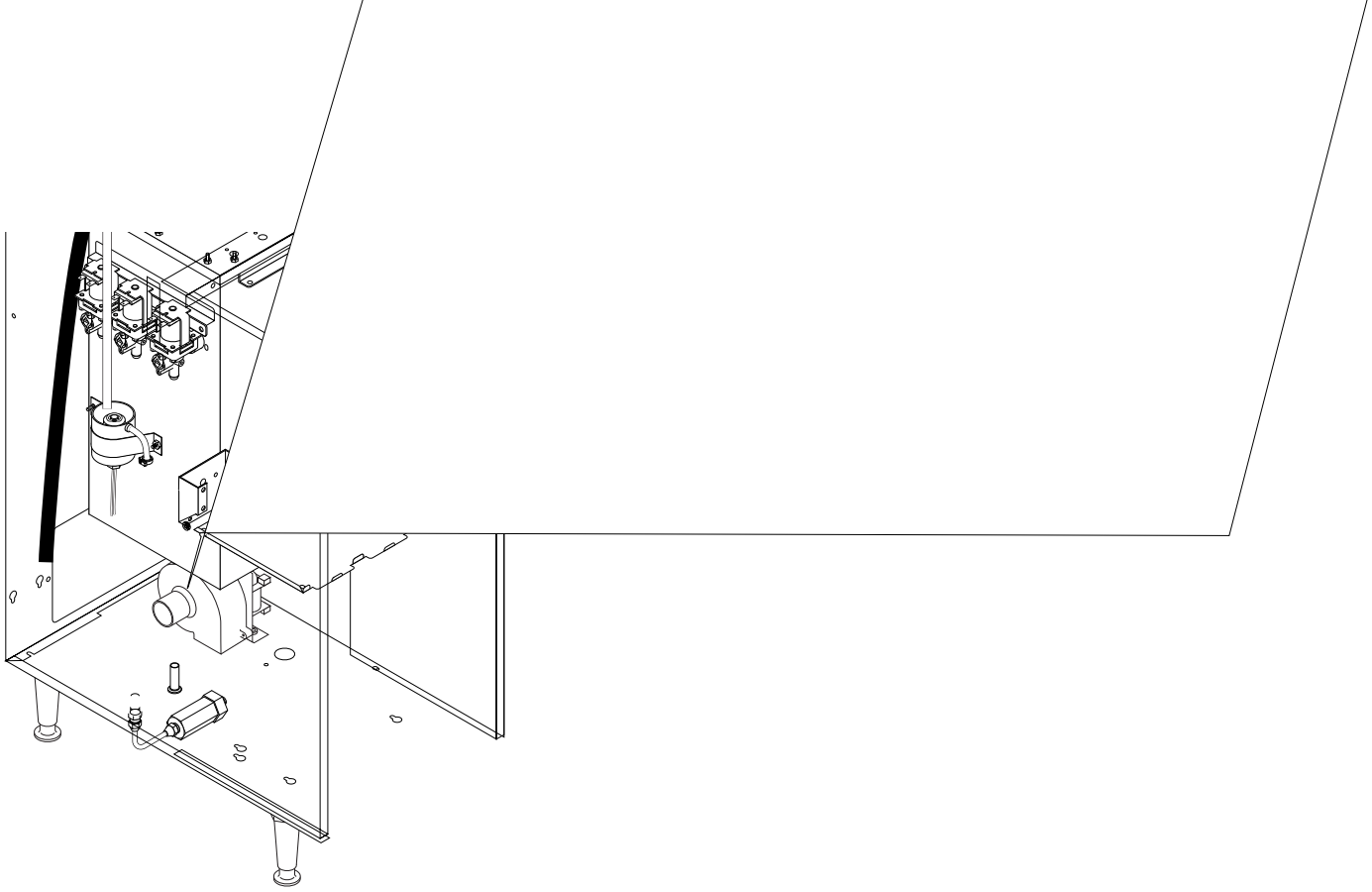
6. Remove starter (6) from starter socket.
7. Check for continuity across the pins on the bottom of the starter (6).

If continuity is present as described, replace the starter.
If continuity is not present as described, starter is operating properly.

Note: If continuity tests are both as described and lamp does not light, replace the starter socket.

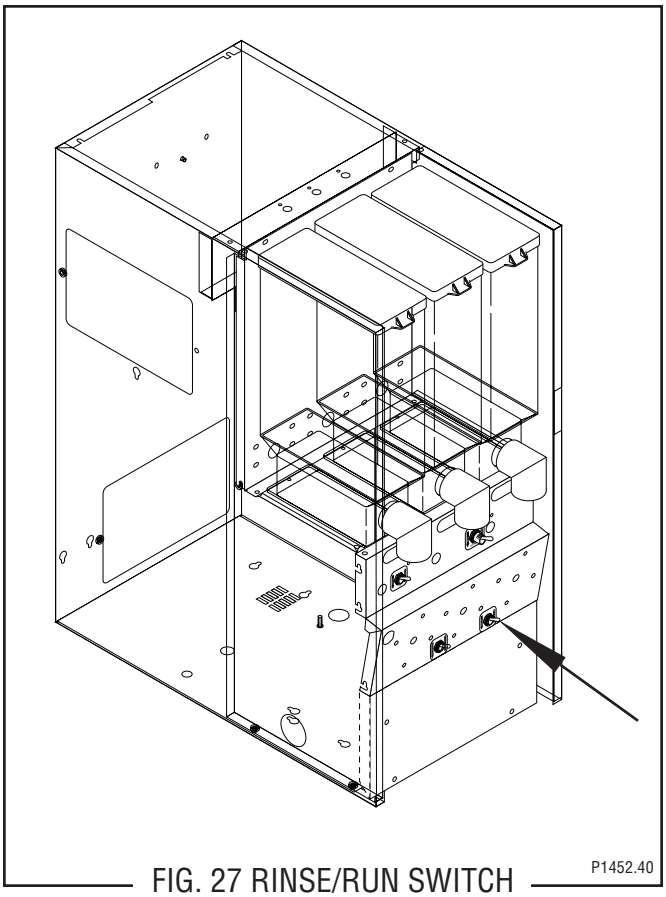
Removal and Replacement (Refer to Fig.22):

1. Open dispenser door assy (1)
2. Remove the five #6-32 screws securing the door lower panel (5) to the door assy (1).
3. Disconnect the leads on the starter socket from the door wiring harness.
4. Remove lower door panel (5) and starter w/socket (6) as assembly.
5. Compress the spring tabs on the socket and remove socket from the door bottom cover (5).
6. Rotate starter 90° and remove from the starter socket.
7. Insert new starter (6) into socket and turn 90° until the pins snap in place.
8. Install new socket by compressing spring tabs on the socket and pushing the socket up through the hole in the lower door panel (5) and releasing spring tabs.
9. Connect the sockets leads to the door wiring harness.
10. Install door lower panel (5) with starter and starter socket on door assy (1) using five #6-32 screws.



SERVICE (cont.)

RINSE /RUN SWITCH



P1452.40

FIG. 27 RINSE/RUN SWITCH

Location:

The rinse/run switch is located on the lower right side of the whipper motor mounting panel.

Test Procedures:

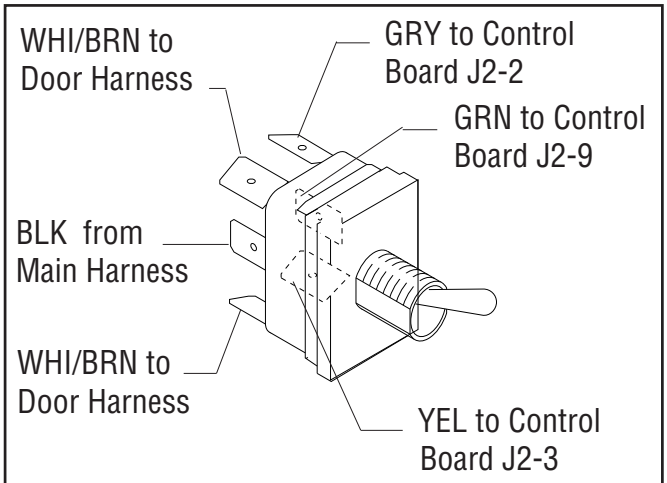
1. Disconnect the dispenser from the power source.
2. Check for continuity between the center left terminal and left bottom terminal, also between the center right terminal and the right bottom terminal with the switch in the rinse (upper) position. Check for continuity across the center left terminal and the top left terminal, also between center right right terminal and the right top terminal with the switch in the run (lower) position . Continuity must not be present when the switch is in the center position.

If continuity is present as described, the switch is operating properly.

If continuity is not present as described, replace the switch.

Removal and Replacement:

1. Open the dispenser door.
2. Remove the facenut securing the run/rinse switch to the whipper motor mounting panel.
3. Remove switch with wires attached from the back side of the whipper motor mounting panel.
4. Disconnect the wires from the switch and discard the switch.
5. Refer to Fig. 28 when connecting the wires to the new switch.
6. Install new switch with wires attached through the hole in the whipper motor mounting panel and secure with facenut.



P1644

FIG. 28 RINSE/RUN SWITCH TERMINALS

SOLENOID VALVE (COLD WATER - OPTIONAL)

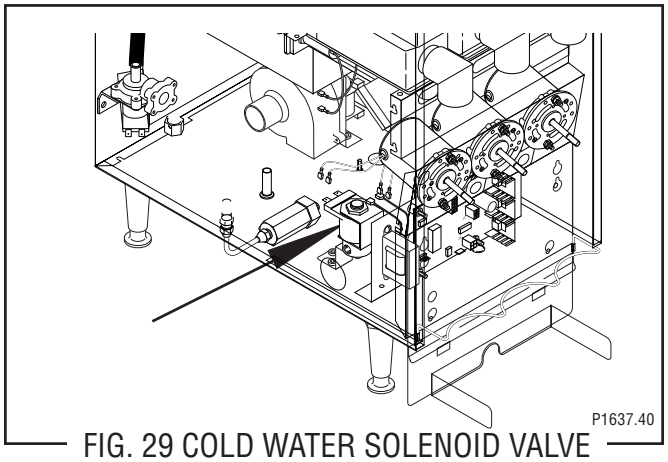


FIG. 29 COLD WATER SOLENOID VALVE

Location:

The cold water solenoid valve is located on the left side of the dispenser base just behind the component bracket.

Test Procedures:

1. Disconnect the dispenser from the power source.
2. Disconnect the white and white/yellow wires from the solenoid valve. With the “HOT/COLD” switch in the "COLD" (upper) position press the left dispense switch on front of the door.
3. With a voltmeter, check the voltage across the white and white/yellow wires. Connect the dispenser to the power source. The indication must be:
   a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt, and 120/240 volt models.
   b) 240 volts ac for two wire 240 volt models.
4. Disconnect the dispenser from the power source.

If voltage is present as described, proceed to #5
If voltage is not present as described, refer to *Wiring Diagrams* and check dispenser wiring harness.

5. Check for continuity across the solenoid valve coil terminals.

If continuity is present as described, reconnect the white and white/yellow wires to the solenoid.

If continuity is not present as described, replace the solenoid valve.

6. Check the solenoid valve for coil action. Connect the dispenser to the power source. With "HOT/COLD" switch in the "COLD" (upper) position press the left dispense switch and listen carefully in the vicinity of the solenoid valve for a "clicking" sound as the coil magnet attracts.
7. Disconnect the dispenser from the power source.

If the sound is heard as described and water will not pass through the solenoid valve, there may be a blockage in the water line before the solenoid valve or, the solenoid valve may require inspection for wear, and removal of waterborne particles.

If the sound is not heard as described, replace the solenoid valve.

Removal and Replacement:

1. Loosen the two screws securing the component bracket to the dispenser base. Lift the component bracket off of the base and move to the right.
2. Remove the white and white/yellow wires from the solenoid valve.
3. Turn off the water supply to the dispenser.
4. Disconnect the water lines to and from the solenoid valve.
5. Loosen the two #8-32 screws and washers securing the solenoid mounting bracket to the base. Remove solenoid bracket and solenoid valve as an assembly.
6. Remove the two #10-32 screws and lockwashers securing the solenoid valve to the solenoid bracket.
7. Using two #10-32 screws and lockwashers install new solenoid valve on solenoid mounting bracket.
8. Install the solenoid valve and bracket on the dispenser base and tighten the two #8-32 screws.
9. Securely fasten the water lines to and from the solenoid valve.
10. Refer to Fig. 30 when reconnecting the wires.

SERVICE (cont.)
SOLENOID VALVES (DISPENSE)

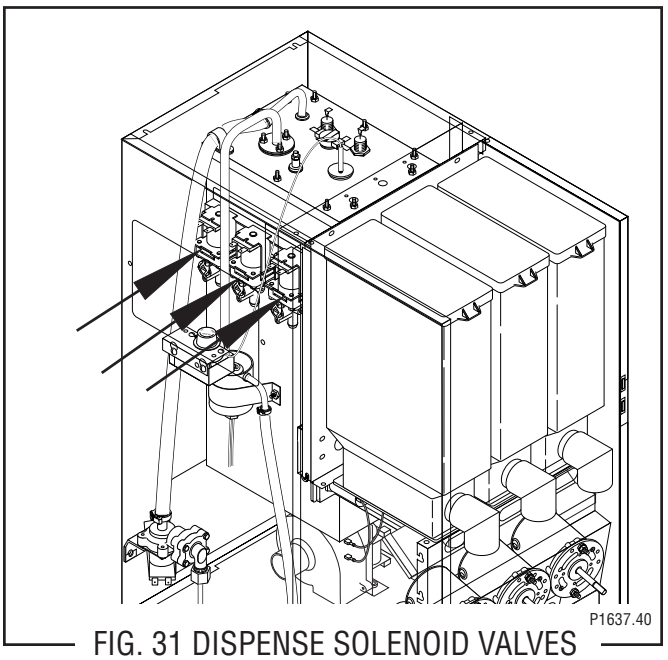


FIG. 31 DISPENSE SOLENOID VALVES

Location:

The dispense solenoids are located on the upper left side of the tank.

Test Procedures:

1. Disconnect the dispenser from the power source.
2. Disconnect the white and white/violet, orange or tan wires from the solenoid valve. With the "RUN/RINSE" switch in the "RINSE" (upper) position press the appropriate dispense switch on front of the door.
3. With a voltmeter, check the voltage across the white and white/violet, orange or tan wires. Connect the dispenser to the power source. The indication must be:
   a) 120 volts ac for two wire 120 volt models, three wire 120/208 volt, and 120/240 volt models.
   b) 240 volts ac for two wire 240 volt models.
4. Disconnect the dispenser from the power source,

If voltage is present as described, proceed to #5
If voltage is not present as described, refer to *Wiring Diagrams* and check dispenser wiring harness.

5. Check for continuity across the solenoid valve coil terminals.

If continuity is present as described, reconnect the white and white/violet, orange or tan wires to the solenoid.

If continuity is not present as described, replace the solenoid valve.

6. Check the solenoid valve for coil action. Connect the dispenser to the power source. With "RUN/RINSE" switch in the "RINSE" (upper) position press the appropriate dispense switch and listen carefully in the vicinity of the solenoid valve for a "clicking" sound as the coil magnet attracts.
7. Disconnect the dispenser from the power source.

If the sound is heard as described and water will not pass through the solenoid valve, there may be a blockage in the tank water outlet before the solenoid valve or, the solenoid valve may require inspection for wear, and removal of waterborne particles.

If the sound is not heard as described, replace the solenoid valve.

Removal and Replacement:

1. Remove the white and white/violet,orange or tan wires from the solenoid valve.
2. Turn off the water supply to the dispenser.
3. Drain enough water from the tank (approximately 1.0 gallon) so the water level is below the dispense valve mounting hole.
4. Disconnect the water line from the solenoid valve.
5. Remove the #10-32 screw securing the solenoid valve to side of the tank. Remove solenoid valve.
6. Using the #10-32 screw install new solenoid valve on side of the tank
7. Push the water line onto the tube on bottom of solenoid valve.
8. Refer to Fig. 32 when reconnecting the wires.

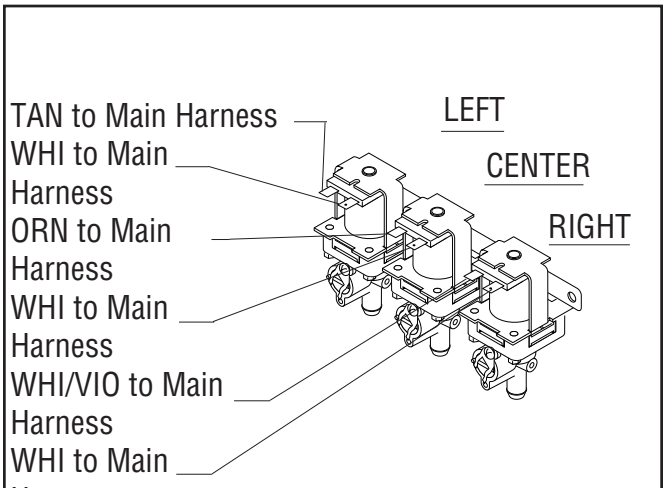
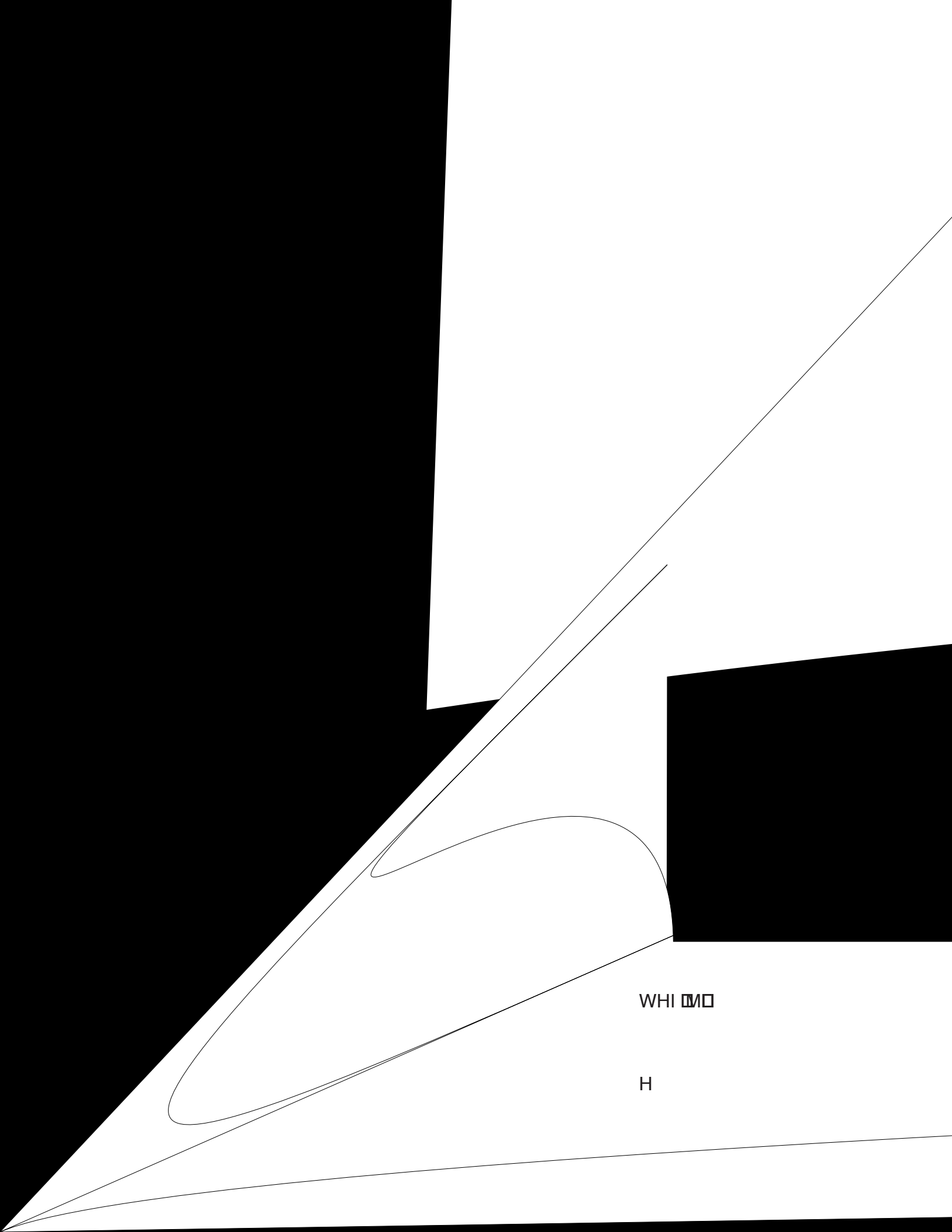
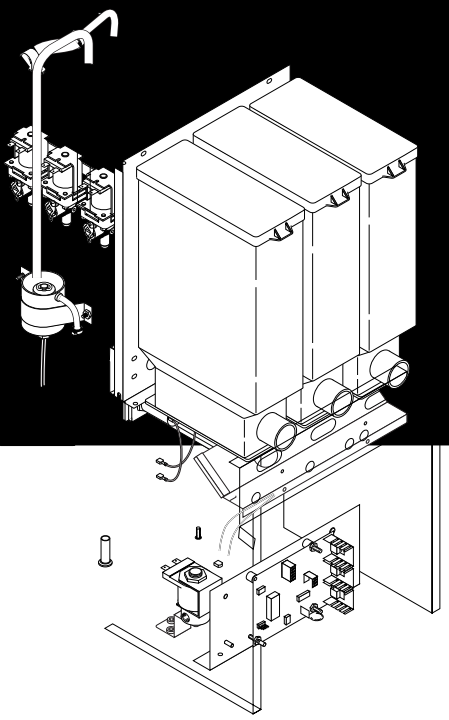


FIG. 32 DISPENSE SOLENOID VALVE TERMINALS


WHI
H



SERVICE (cont.)

TANK HEATER (cont.)

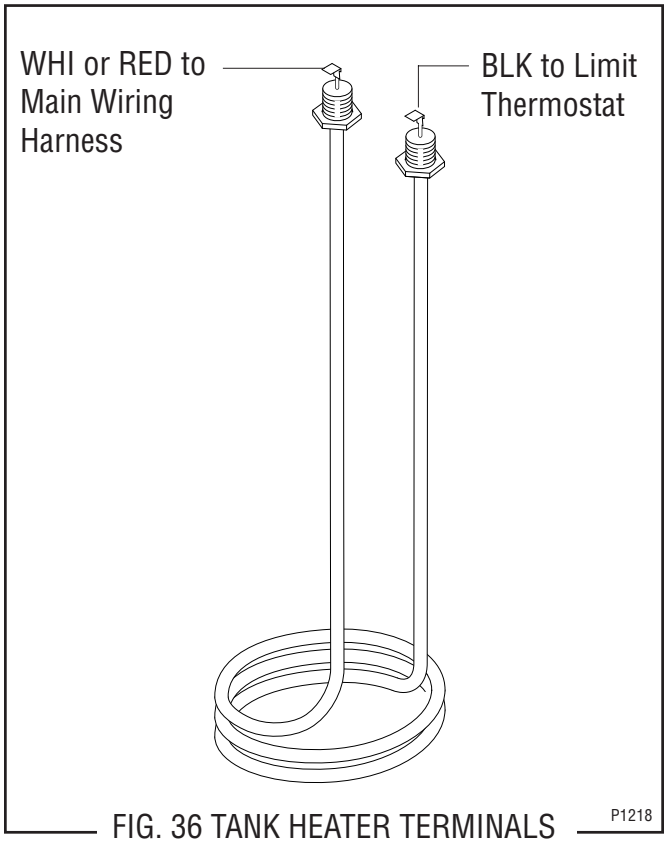
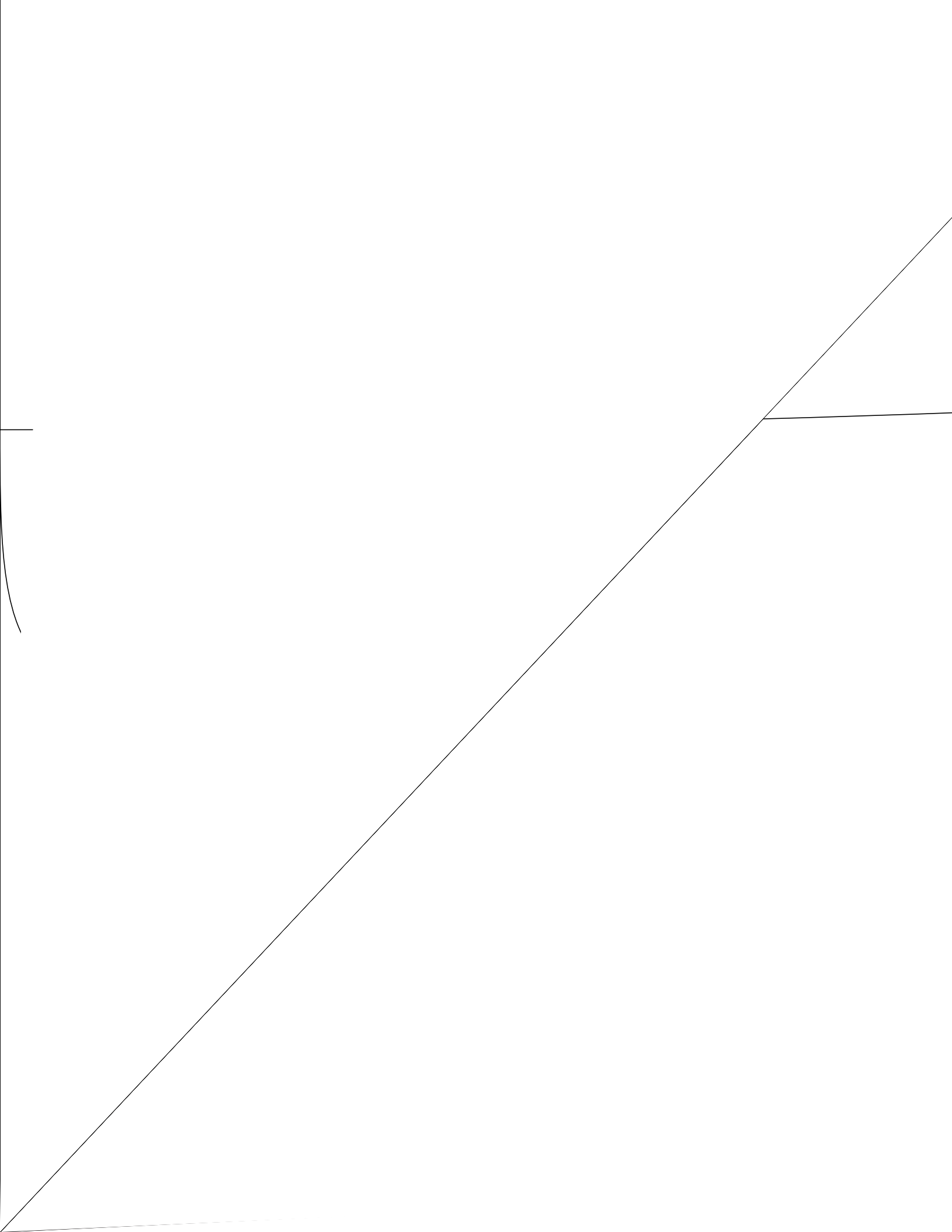
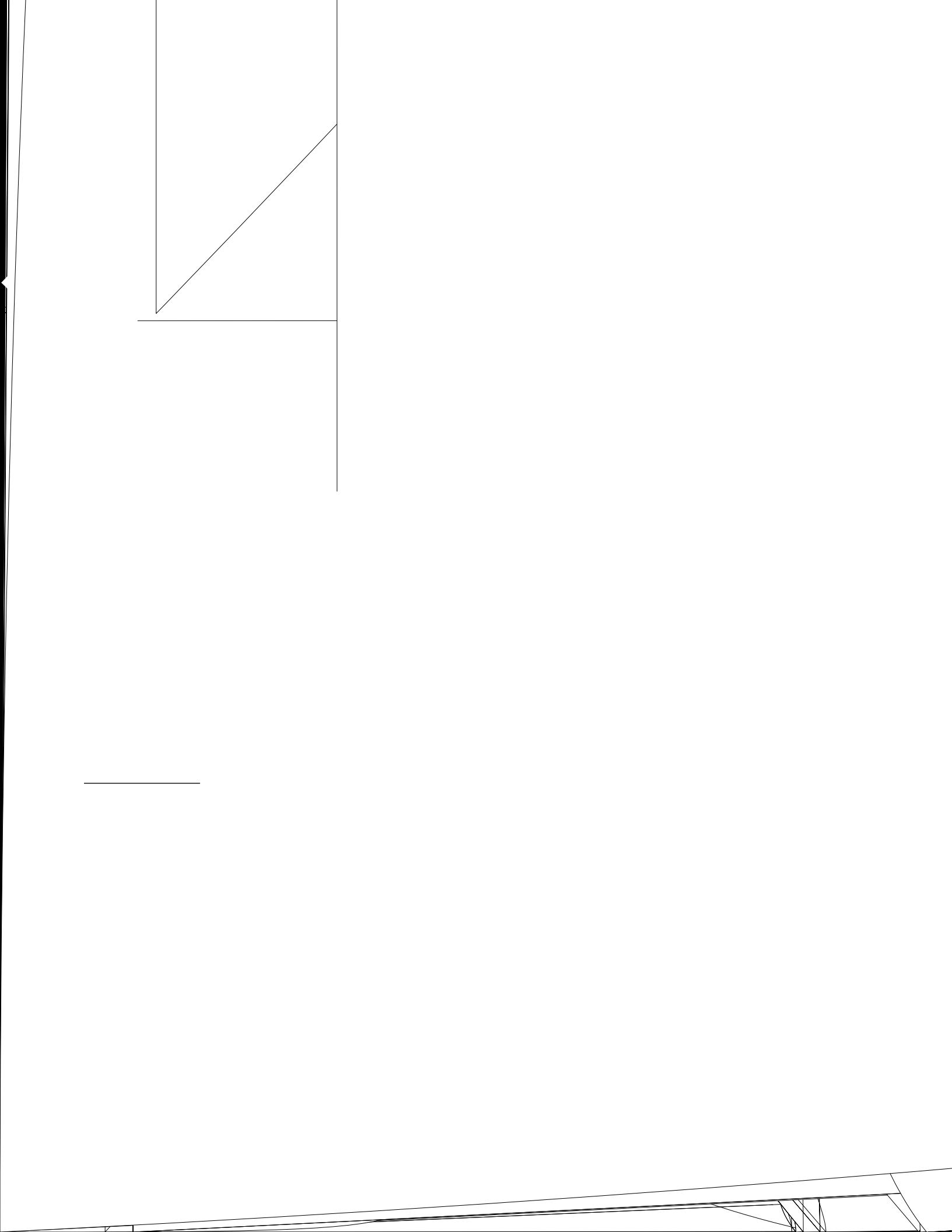


FIG. 36 TANK HEATER TERMINALS





BLK-16
WHI/BRN
WHI/BLK
WHI/GRN
120V : 24V AC
TRANSFORMER
WHI
BLK
RINSE/PROGRAM/
RUN SWITCH
GRY
RUN
PGM
RINSE
YEL
WHI/BRN
INCREASE/
DECREASE
SWITCH
ORN
TAN
GRN
CHASSIS
DOOR
WHI/YEL
WHI/ORN
WHI/RED
WHI/VIO
ORN
WHI/BRN
GRN/BLK
WHI/BLK
PNK
'RINSE' L.E.D.
BLU/BLK
BLK/WHI
ORN
BLU/WHI
WHI
RED/BLK
RED/WHI
RED
BLU/WHI
RED
BLK/WHI
BLU/BLK
RED/BLK
LEFT DISPENSE SWITCH
CENTER DISPENSE SW
WHI

SCHEMATIC WIRING DIAGRAM FMDA-3